



JUNE, 96

# THE GARZETTE

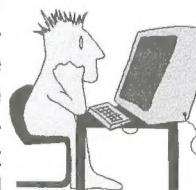
Visit GARS at <http://www.gars.org>

VOLUME 3, ISSUE 6

## The President's Pen

By Howie Gould, W4NVF

Well here it is another month passed and you suddenly realize how short life really is. Life has been good to me so far and without getting into a battle royal over religious matters I will just say that the fact that I am still around here is because I believe that there is some powerful force beyond man that put me together and has control over my life and everyone else's, and that force is God. I remember when I was a young lad many moons ago how unimportant it was to see the days and weeks tick away, let alone months and years. But that all changes with time, take my word for it. You go through life with all the energy you can muster to carry you through each hard work day so that you can take home a paycheck worthy of all the long hours at the salt mine. Sometimes it pays off and other times it is a total loss as you go struggling along to pay the



bills and hope that there will be some left over for the good stuff. It all evens out if you are lucky and it takes a lot of luck staying in the working game these days. If you are real lucky you get to be where I am, finally retired in semi good health, without common problems such as arthritis and rheumatism to plague you. But what about ham radio you say? Surely you must have a ball getting up when you want to or staying on the air all night if you like? Not so my friends, it just don't work that way unless you commit yourself to a daily dose of it and then it may or may not be good for you. I am not one cut out for that sort of thing so I very rarely get on the radio at all. Yet when I do there is a never ending supply of new hams I have never met before just waiting for the chance to get into a rag chew with me. It is truly a miracle this radio thing for

(Continued on page 6)

## The Third Thursday Falls On A Wednesday Again This Month

The GARS meeting will be on Wednesday, June 19 at the Justice and Administration Center in Lawrenceville. The meeting begins at 7:30 and everyone is invited to join us there and at Ryan's Steak House on Pike Street for the pre-meeting dinner beginning at 6:00.

## GARS Ham Of The Month

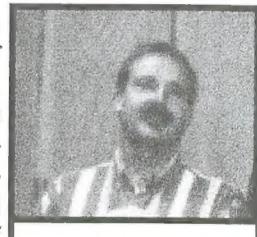
**Moe Wheatly, AE4JY**

By Karl Phillips, N4JON

Moe was born in Vincennes, Indiana, the same town that claims to be the birthplace of Red Skelton. He attended grade school there and then moved to Bridgeport, Illinois.

In 1973, while a junior in high school, Moe began an interest in amateur radio fueled by old 1950 issues of Popular Electronics that belonged to his father. His interest expanded into electronics and as a junior in high school, Moe passed his Novice/ Tech test and became WB9KHB.

It appears to me that



Moe Wheatly, AE4JY  
Photo by  
Joe Biddle, AD4PZ

Moe was an "old timer" before his time as he actually built his first rig from scrap TV parts. His homebrew rig ran about 40 watts on CW. Moe also obtained a Gonset

Communicator and converted it to 2 meters and also built from scrap a 6 meter rig. (How many junior high kids nowadays can do this ???) His 6 meter rig ran 60-80 watts

and his antenna system consisted of a dipole for 40 meters, a 2 element 6 meter beam and a Cushcraft 22 element beam for 2 meters on a

(Continued on page 7)

### Inside This Issue

Meeting Minutes	Page 2
GARS Charter Member SK	Page 3
GARS Supports Dacula Parade	Page 3
A One Day Operating Permit?	Page 3
A Call To Action	Page 4
GARZETTE Special Edition	Page 5
911 Phone Calls	Page 5
New Members	Page 6
An Internet Primer	Page 8
A Rookie's Experience	Page 9
Rookie Radio Notes	Page 10

## THE GARZETTE

**THE GARZETTE** is the official monthly organ of the Gwinnett Amateur Radio Society serving its members and other persons interested in the advancement of the amateur radio art.

Original articles, art, and photos are invited and encouraged. Previously copyrighted submissions cannot be accepted for reprinting unless permission from the appropriate publisher is provided in writing along with the information being submitted. If reprints are from publications allowing their unrestricted use, please include a copy of the printed permission contained in the publication.

If possible, submit items in ASCII text format or Microsoft Word format by email to ichapman@intergate.net or by posting a private message on the SA BBS (770) 236-7372, to Ike Chapman in the GARS conference. Use the Save Attached command and mark the security to receiver only. Art can be accepted in most any graphics format and can be submitted on an IBM formatted disk or via email as a uuencoded file attachment.

Contact the editor for other format compatibility or other means of transfer. Deadline for submissions is the first of each month.

### GARZETTE Editor

Ike Chapman, KE4GYM

Editor's Desk: (770) 339-8123

Email: ichapman@intergate.net

**THE GARZETTE** is created on a HIQ Technologies P5-166 MHz computer using Microsoft Publisher V3.0 and Microsoft Word V 7.0 running Windows 95. The master copy is printed on a HP-855C DeskJet Printer.

Thanks to Joe Biddle, AD4PZ for his assistance in the newsletter each month with supplying scanned images, and assisting with folding and stapling. David Adcock, KA4KKF prints the mailing labels each month. Candy and Liz Chapman assist with the editing tasks by proof reading the newsletter. Sue Chapman gets the stamps and makes sure the newsletter gets to the post office each month.

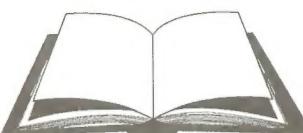
My thanks to all of them for their help in producing **THE GARZETTE**.

All correspondence relating to articles posted in **THE GARZETTE** or for information concerning advertisement rates for **THE GARZETTE** should be directed to the following address:

Gwinnett Amateur Radio Society  
P.O. Box 88  
Lilburn, GA 30226  
Attn: Newsletter Editor

In keeping with the amateur radio spirit, permission is hereby granted for the reproduction of **THE GARZETTE** articles by other amateur radio club newsletters provided proper credit is given to the individual author and to **THE GARZETTE**.

♦♦♦



In attendance: President Howie Gould, W4NVF; Secretary Bill Ahls, KE4EIH; Treasurer Randy Drescher, AC4PD; Activities Manager Marty Fowler, KE4MLH; News Letter Editor Ike Chapman, KE4GYM; and Membership Manager David Adcock, KA4KKF.

The meeting was called to order by President Gould on May 15, 1996, at 19:30 local time at the Gwinnett Justice and Administration Center in Lawrenceville.

All members and visitors were invited to introduce themselves with a total of 64 persons signing the meeting log.

The minutes for the April meeting were approved as published in the **GARZETTE**.

Randy Drescher, AC4PD, presented the treasurers report and current GARS checking balance which was approved by the membership. GARS does process new and renewal ARRL memberships to help club affiliation. Please give this information to Randy or send via the GARS PO Box. Renewals need your ARRL mailing label.

The GARS web page may be viewed at "<http://www.gars.org>" and includes features such as the officers, GARS e-mail addresses, and the **GARZETTE**. President Gould stated the content should be approved by the GARS executive committee. This would not include agreed upon regular features such as the **GARZETTE**.

GARS has an offer to support the EAL in Snellville with Steve Diggs. Steve and the executive committee will work on the details. Marty Fowler presented estimates to support a DX packet cluster that was researched by John Farr,

## Meeting Minutes

By Bill Ahls, KE4EIH

KD6CLO. Motion was made and passed to fund the \$1100 required as in the KD6CLO report to get the DX packet station on the air.

David Adcock, KA4KKF presented six new applicants for membership in GARS. A motion was made and seconded to accept the applicants as presented and passed without opposition. The new members of GARS are: William Roberson, KB5UXK; Jeff Cape, KD4RBI; John Anderson, KF4HMO; Langdon McAlpin, N4PMG; Jim Estes, WA4YTP; and Jim Glaeser, WB4ZTH.

Bill Ahls, KE4EIH is requesting volunteers for the Dacula Memorial Day (May 27) Parade and Run events. Sign up or call him at 770-279-7044.

We need more GARS volunteers to support the Atlanta Radio Club hamfest on June 8 and 9.

The Sam's Club Radio demonstration was well received. Bufford Radio Shack is the next radio demonstration, look for a date later.

Joe Biddle, AD4PZ presented a well-received video of the 1995 GARS field day. There are many things that were done right thanks to the previous field day chairperson and all volunteers. These lessons learned are used in the planning for field day 1996. Remember field day is June 22 to June 23 at Rhodes Jordon Park. The setup begins between 8:00 and 9:00 AM. The contest starts at 2:00 PM.

Marty Fowler, KE4MLH thanked everyone involved in the Snellville Parade and said we received a nice letter of thanks

The meeting was adjourned at 21:12 local time by President Gould.

♦♦♦

## GARS Charter Member SK

By Johnny Fearon, W4WKP

On May 2<sup>nd</sup>, I was notified of the death of George Howard Verner, W4GRE of Duluth. Howard, as he was known to the hams, was one of the charter members of **GARS**. In addition he was also a member of what was then, a second group known as "The Gwinnett Repeater Association". This was a group of ten people who in the mid seventies put up one hundred dollars each so that the first repeater would be put on the air in Gwinnett County. Eventually they let **GARS** have the repeater.

Howard participated in everything he could and in every way possible for years. I hadn't talked to him in some while but I understand he had been in ill health. I would believe he is no longer suffering. You may wonder why I put this in. I just thought it was a little piece of **GARS** history that people ought to know, as they give a final thought to Howard Verner - W4GRE (1918-1996), and all he contributed to **GARS**.

❖❖❖

## A One Day Operating Permit?

By Danny Bell, KC4OXP

UNITED STATES OF AMERICA FEDERAL COMMUNICATIONS COMMISSION																					
AMATEUR RADIO LICENSE																					
KC4OXP																					
JOSEPH D BELL JR 850 GEORGETOWNE DR WINDER GA 30680																					
Special Conditions																					
<p style="text-align: center;">CENSEE: Below are your Amateur Radio Licenses in sizes suitable for carrying in a wallet. The Commission suggests that the wallet for other similar documents protection purposes that the wallet under certain circumstances, these prints are subject to damage.</p>																					
<table border="1"> <tr> <td>Call Sign</td> <td>License Date</td> <td>Expiry Date</td> <td>Issue Date</td> </tr> <tr> <td>KC4OXP</td> <td>01/18/96</td> <td>01/18/96</td> <td>1996</td> </tr> <tr> <td colspan="2">Owner Manager: <i>[Signature]</i></td> <td colspan="2">Status: PRIMARY</td> </tr> <tr> <td colspan="2">TECH PLS:</td> <td colspan="2">TECH PLS:</td> </tr> <tr> <td colspan="2">JOSEPH D BELL JR 850 GEORGETOWNE DR WINDER GA 30680</td> <td colspan="2"></td> </tr> </table>		Call Sign	License Date	Expiry Date	Issue Date	KC4OXP	01/18/96	01/18/96	1996	Owner Manager: <i>[Signature]</i>		Status: PRIMARY		TECH PLS:		TECH PLS:		JOSEPH D BELL JR 850 GEORGETOWNE DR WINDER GA 30680			
Call Sign	License Date	Expiry Date	Issue Date																		
KC4OXP	01/18/96	01/18/96	1996																		
Owner Manager: <i>[Signature]</i>		Status: PRIMARY																			
TECH PLS:		TECH PLS:																			
JOSEPH D BELL JR 850 GEORGETOWNE DR WINDER GA 30680																					
<p style="text-align: center;">FCC AMATEUR RADIO LICENSE REISSUED 1996</p>																					

## GARS Supports Dacula Parade

By David Adcock, KA4KKF

I would like to thank the **GARS** members listed below for participating in providing communications for the Memorial Day Parade in Dacula. All of these people gave up part of their holiday to help out with this club activity and it is greatly appreciated.

Next year we will need more volunteers to work the parade since we are planning on putting more people in the parade to walk along the route. This will be in addition to the stationary units used this year.

David Adcock, KA4KKF  
 Doug Kregel, KB6RRX  
 Karen Kregel, KC6JCX  
 Duane Hansen, KD4KCR  
 Bob DiPrima, KE4CWI  
 Marty Fowler, KE4MLH  
 Frank Cronic, KE4MSF  
 Jenny Eberhardt, KE4QNE  
 Lewis Eberhardt, KE4QOV  
 Mike Campbell, KF4HLM  
 Jeff Glasscock, KF4HLK  
 David Mattison, KD4PCK  
 Carter Wood, KF4HLF  
 Rick Morris, KD4VOJ

❖❖❖



## Contact GARS 1996-1997

### Officers

#### President

Howie Gould, W4NVF (770)921-8362

#### Vice President

Larry Osborne, KD4QFD (770)513-2799

#### Secretary

Bill Ahls, KE4EIH (770)279-7044

#### Treasurer

Randy Drescher, AC4PD (770)925-9549

#### Activities Manager

Marty Fowler, KE4MLH (770)682-5789

## Board Of Directors

Johnny Fearon, W4WKP (770)466-4038

Duane Hanson, KD4KCR (770)962-6086

Cheryl McClure, AE4HN (770)995-5159

## COMMITTEES

### Newsletter Editor

Ike Chapman, KE4GYM (770)339-8123

### License Trustee

J. Pickett Cummins, AD4S (770)339-9231

### Awards Manager

Charles Robison, AD4MI (770)923-3610

### Repeater Chairman

Howie Gould, W4NVF (770)921-8362

### Repeater Control Operators

Larry Osborne, KD4QFD (770)513-2799

Ike Chapman, KE4GYM (770)339-8123

Joe Biddle, AD4PZ (770)963-4316

Eddie Foust, WD4JEM (770)339-4886

Bill Brandon, KR4KT (770)985-8125

Ron Davidson, K4HRB (770)466-4932

### Membership Chairman

David Adcock, KA4KKF (770)963-5767

### Publicity

Jim Baker, KR4XY (770)623-5535

### TVI

David Schulte, KT4NK (770)923-0389

### Rookie Radio

Cheryl McClure, AE4HN (770)995-5159

### Field Day

Joe Biddle, AD4PZ (770)963-4316

### Ham Classes

Larry Osborne, KD4QFD (770)513-2799

### Legal Counsel

Bill Brandon, KR4KT (770)985-8125

### HF/VHF/UHF Awards Checker

Don Ernest, KS4WR (770)923-4851

### DXCC Checker

Frank Deak, AF4Y (770)978-6546

Neil Foster, KC4MJ (404)449-3340

❖❖❖

## A Call To Action

By David Sumner, K1ZZ

Write Now! Get out a pen and paper, or boot up your computer. There's work to be done! Your help is needed to defend two meters and 70 cm. Yes, that's right—the two most popular and crowded amateur VHF/UHF bands! But don't panic, and don't "go ballistic." Here's what's happening, and what you can do about it.

The United States is preparing for the 1997 ITU World Radiocommunication Conference, WRC-97. In the past, the public has been able to participate in the preparations for such conferences by responding to FCC Notices of Inquiry. In March, the FCC announced a streamlining of its International Bureau's preparatory processes for WRCs. Under the new scheme, the NOIs have been eliminated in favor of increased emphasis on WRC Advisory Committees.

For WRC-97, a series of Informal Working Groups (IWGs) of the Advisory Committee has been created to address specific agenda items. The output of each IWG will go directly to a joint FCC-NTIA-Department of State Steering Committee of the Advisory Committee. There, draft proposals as received from the IWGs will be reviewed and forwarded to the FCC for possible release as preliminary U.S. proposals for public comment.

In announcing the streamlined WRC preparatory process, the FCC tried to reassure those who might be concerned about reduced opportunities for public participation: "Interested parties should note that input to the Advisory Committee may be sent at any time directly to the Chair of the WRC-97 Advisory Committee; the Chairs of the Advisory Committee's Informal Working Groups; Cecily C. Holiday, the FCC's federal officer of the WRC-97 Advisory Committee, or to Damon C. Ladson, the alternate fed-



eral officer." Hold that thought while we shift gears to the substance of the issue.

One of the WRC-97 agenda items includes consideration of possible additional frequency allocations for the mobile-satellite service. So-called "little LEOs," low-earth orbit satellites below 1 GHz, already have allocations. Their proponents claim these are inadequate and are trying for more. The needs of little LEOs are being addressed in IWG-2A, chaired by Warren Richards of the Department of State. The ARRL technical relations staff participates in IWG-2A to represent Amateur Radio interests. At the May 7 IWG-2A meeting, an industry representative proposed a list of "candidate bands" for little LEOs. The list includes a number of bands that would negatively impact existing services, and does not include others that would be technically more feasible but to which strong objection from incumbents could be expected—the point being that some political, rather than purely technical, judgment already has influenced the list. Incredibly, 144-148 and 420-450 MHz were included on the list! This is the first time in memory that another service has been proposed for the two-meter amateur band. We must make sure it is also the last time.

We do not need to explain to ARRL members the extensive use that is made of these bands by amateurs. The two bands provide the backbone of our local public service communications effort.

Voice and data, mobile and fixed, even television—the list of present amateur uses is a long one, and of future uses is even longer. Both are already used for satellite services and for moonbounce and extended-range terrestrial operations requiring extremely sensitive receivers and high levels of effective radiated power.

Apparently we did need to explain all this to the little LEO industry representatives, so we did just that—both at the meeting and in a followup letter on May 15. We also explained that we had to regard the matter as extremely serious. No one with the slightest background in radiocommunication could possibly believe that a mobile-satellite service could be introduced into either band without disrupting existing and future amateur operations. Therefore, we said, if we did not receive assurance that they would be taken off the list of candidate bands by the deadline for this issue of QST, we would have no choice but to bring the matter to the attention of the entire membership.

The response we received was unsatisfactory. In effect, we were told the little LEO industry would consider our views but that until their spectrum needs are satisfied, all bands must remain under consideration.

So, this is a call to action. We must get across to the industry and government participants in IWG-2A that the 144-148 MHz and 420-450 MHz bands cannot be considered as candidates for mobile-satellite services. We need to drive the point home so forcefully, with so many grassroots responses, that no one is ever tempted to try this again. Which brings us back to that invitation for "interested parties" to send input "at any time."

(Continued on page 5)

## Call To Action

*(Continued from page 4)*

There's no time like the present! Here are the key addresses, including those of the mobile-satellite industry folks who seem to have started the ruckus:

Cecily C. Holiday  
International Bureau  
FCC  
Washington, DC 20554  
e-mail: choliday@fcc.gov  
FAX 202-418-0748.

Warren G. Richards  
Chair, IWG-2A  
Department of State  
CIP 2529  
Washington, DC 20520  
email:  
richardswg@ms6820wpoa.us-state.gov  
FAX 202-647-7407.

Tracey Weisler  
FCC Rep, IWG-2A  
International Bureau  
FCC  
Washington, DC 20554  
e-mail: tweisler@fcc.gov  
FAX 202-418-2824.

Mary Kay Williams  
Final Analysis, Inc.  
7500 Greenway Center  
Suite 1240  
Greenbelt, MD 20770  
FAX 301-474-3228.

Leslie Taylor  
President, LTA,  
6800 Carlyn Ct  
Bethesda, MD 20817  
e-mail: ltaylor@lta.com  
FAX 301-229-3148.

Do comment. But be civil. Don't abuse people who are simply doing their jobs. We have to get across that casting covetous eyes on amateur bands is counterproductive, and contrary to the public interest. To accomplish this we

## Announcing THE GARZETTE Field Day Special Edition

A second edition of THE GARZETTE will be published in June especially for Field Day.

The Special Edition will include:

- Welcome message from the GARS Field Day Chairman
- Rememberances of past Field Days
- Satellite passes schedules
- Logging information
- A list of all ARRL sections
- Map to the GARS Field Day Site
- Food and beverage information
- Talk in frequencies
- VHF work frequencies
- Much, much, more .....

Look for this special edition in your mailbox in the next few days and we hope to see everyone at the GARS Field Day on June 22 and 23.



need a lot of comments, including yours. But remember that the objective is to educate and persuade, not to intimidate. We don't need to. The facts are on our side.

To monitor the FCC's ongoing WRC-97 preparations, visit its WRC-97 home page at <http://www.fcc.gov/ib/wrc97/>. Write now. Right now!—David Sumner, K1ZZ

Reprinted with permission from July 1996 QST.



## 911 Phone Calls

By Ike Chapman, KE4GYM

One of the local television stations news reports carried a story this past week concerning 911 phone calls and cellular phones. Most of the metropolitan Atlanta counties, including Gwinnett, have installed an Enhanced 911 System. This system tells the call taker at the dispatch center the address—where from where you are calling. However, when using cellular phones (or our 2 meter phone patch) that information is not available.

The report went to say that one of the major problems the dispatch centers have when taking a 911 call from a cellular phone is that the person often has only a vague idea of his/her exact location or no idea at all.

If you have checked into the Gwinnett ARES net on Sunday night or just listened to the net you will remember that this is a subject that has come up several times. You should always be aware of your surroundings and your location before attempting to get assistance. Listed below are some things to remember:

- the street or highway number you are on
- the nearest cross street and/or mile marker
- the nature of the emergency
- for automobile accidents, the type and color of the vehicles involved
- if any injured people are on the scene and require assistance

Reporting this information in a clear concise manner is what makes us as amateur radio operators stand out from the general public and makes our service valuable to the public and the local authorities.



## The President's Pen

*(Continued from page 1)*

no matter when you decide to operate, there is always someone just waiting there to talk to you. Like everything else in life, there are those who call a CQ and there are those who are just tuning around looking for you and never give a call of their own. I find this totally amazing.

Lets look at the club shall we? How are we doing? Well I would say darn good taking into account all that has taken place over the past few months. There has been a lot of activity with the Snellville parade, the Hog Mountain bike race, and the Dacula parade behind us. A lot of folks turned out for them all and it was a great pleasure hearing about all the good folks helping out. We received a nice letter from the City of Snellville thanking us for our support of their Snellville Days. We are looking towards the future to be more community active but in the meantime we have been promoting new hams with our no code tech class. Larry Osborne, KD4QFD has been doing an outstanding job at Central Gwinnett High School with six of his students receiving a license after Larry's first attempt at this teaching thing. I understand Larry is ready for his next class this fall. Charles Robison, AD4MI was also busy teaching the General class at the Gwinnett Justice and Administration Center. There has been nothing but god comments coming back from this class. I think we are definitely doing the right things not only for the future of the hobby but the future of the club because it is well known that an active club generates higher memberships and activity from it's members.. If we continue with these activities and programs, I see nothing but good coming out of it for the club. Oh yes before I forget, Frank Deak, AF4Y

has consented to run a code class in the near future. This is the spirit that keeps our club alive and well.

One problem area we have is the meeting place. We do not have a guaranty for the Justice and Administration building. It seems that neither July or August are available to us for our monthly meetings and that puts us on the spot again. We need to pursue other alternatives to a meeting place and quickly, so if any of you members out there know of some places that are willing to let us hold a meeting with 60 to 70 attending, then please get in touch with Larry, KD4QFD whom I have delegated the task of finding a place.

Please welcome all the new members that were voted in at our last meeting. Show them your acceptance of them with a smile and hello and make them feel at home. We welcome comments from all our new members as to what they like about the club or what they would like to see the club do in the way of an activity that would benefit them. We of course would expect some time given to the club in the way of support for any activity so proposed.

We are still working on the agreement for the Rockbridge Road water tank site in Lilburn. It appears that the first set of agreements went astray beyond our sponsor at the County Legal Department after they were signed by the Commissioners. We have sent along another set through Ben Boegh, NK0X with the hopes of a speedy return.

The Lanier Mountain (Snellville) Packet/Repeater site is still in the works with Steve Diggs, KB4ZTN working on the security arrangements and Lowry Rouse, KM4Z and Rick Head, KD4MQR working on the new electrical system. We hope to see some improvements over the next few months so that we can get back on the air with the East Atlanta LAN group and possibly our 440 machine.

## GARS Grows Again!

Six new members were voted in at the May meeting.

Jeff Cape, KD4RBI  
 Jim Glaeser, WB4ZTH  
 John Anderson, KF4HMO  
 William Roberson, KB5UXK  
 Jim Estes, WA4YTP  
 Langdon McAlpin, N4PMG

Please welcome the new members to the club in person and on the GARS repeaters.



I hope to see a lot of you at our next club meeting on the third Wednesday at 7.30 P.M. and possibly over at Ryan's Steak house on Pike Street for our social dinner starting at 5.00 P.M.. We usually break at 7.00 P.M. and head for the meeting.

We will be voting on a by law change soon regarding membership. The Executive Committee has decided that we can no longer tolerate the 60 day limit on renewing membership and also that the time of the renewals is not in good timing with the election of new officers. So to give the new officers time to get rolling and their membership chairman plenty of time to have his or her mailings and other matters ready for the change, we have decided that dues will be due on June 1 and closed on June 30 of each year. During the transition period those members in good standing through April 1, 1997 will be given a 2 months override. This should solve a lot of problems we now have and the club will be better off.

73  
 Howie W4NVF



## Ham Of The Month

### Moe Wheatley, AE4JY

(Continued from page 1)

30 foot windmill tower.

In 1979, Moe graduated from the University of Illinois in Urbana, Illinois, majoring in electrical engineering. (Now there's a surprise!!!) Unfortunately, due to the amount of time studying took up, Moe lost interest in ham radio. In 1979, after college, Moe moved to Fort Lauderdale and went to work for Motorola as a design engineer, designing radio pagers. After two years with Motorola, Moe relocated to Atlanta and in 1982 went to work for Printacolor working on a project to develop an ink jet printer. The company consolidated and was renamed Colorocs. They began to work on the development of color copiers and color laser printers. (Oh no ! he's getting in my territory now!!!)

In 1984 Moe's amateur license expired as he began to get too involved in his work to devote any time to the hobby. In 1991, Moe went to work for T/R Systems doing engineering consulting and now sells color printing systems. Things settled down a bit after beginning work for them and Moe's interest for ham radio was rekindled in 1995 as he started studying for another ticket. Moe had soon "brushed up" on his

theory and came to terms with the fact that the code was going to be his biggest challenge. He practiced code for about a month until he figured he could copy maybe 18 wpm with 80% accuracy. Moe then went to one of Howie's sessions and the and passed the written for Novice, Tech and General. Howie ran the code test for 20 wpm, although there was no one there to specifically take the 20wpm test. Well, Moe decided to try it just for a lark. They put aside his 20 wpm effort and gave him the 13 wpm, which he did pass. They then went back out of sheer curiosity and checked his 20 wpm test effort and discovered that Moe had indeed passed the 20 wpm test. Already a general as KF4AQQ, Moe passed his extra and advanced written the next month. Moe went from having no license at all to Extra in 2 and one half months ! This is a fantastic achievement ! I have a feeling that the club was "abuzz" about his accomplishment.

Moe's equipment now consists of a Kenwood R5000 receiver, a Yaesu FT840, a trap dipole for 40/20/15/10 meters and a FT-530 handheld for 2 meters.

Although he admits to not being active on the air or in the club, Moe is a V.E. at the test sessions, will be working security at the Atlanta Hamfest and I think I may have talked him into coming out to Field Day and watch me drink coffee for 2 days and not sleep ! Moe is active on the

Internet and admits that his interest in ham radio nowadays leans mostly toward the technical side. Moe says that he is so inactive that he's self-labeled himself "The Ham that Isn't". I don't entirely agree with him on that because I found Moe to be a very sharp, personable guy who has the knowledge that our club really needs. I am hoping that he will become more active on the bands as well as in the club because he has a lot to offer. Plus, Moe is just a nice guy, period.

If you know of any club member that you think you would like to see featured as Ham of the Month, please give me a call at 770-736-9736. Just a note, don't think that any of you are not worthy to be featured in this column. You all have something about you that will interest others no matter how you fit in the club.

See you next month.

❖❖❖

### The GARS

440 MHz Repeater  
Is Back  
On The Air

**444.525(+)** MHz  
**PL 156.7**

Thanks to all those involved in getting this machine back on the air.

Visit GARS On The World Wide Web

<http://www.gars.org>

Up to date information on club activities, officers, committees, announcements, THE GARZETTE Online, and much more.

Email suggestions for additions to  
gtomlin@mindspring.com or ichapman@intergate.net

THE GARZETTE  
Is Printed Courtesy Of

## Born Printing

3550 Lawrenceville-Suwanee Road  
Suite 104  
Suwanee, GA 30174

Art Smith, KE4MQX  
(770)945-4274 FAX (770)932-1805

## An Internet Primer

By Ike Chapman, KE4GYM

Due to the interest shown at one of the **GARS** meetings where the program was on the Internet and also since I get asked a lot of questions about this subject I decided to write a series of articles on this subject. I don't proclaim to be a know-all, end-all source on the Internet but I have been active on the net for a number of years and end up using it on a daily basis both for personal use and profession use.

Let's first describe what the Internet is, I started to use the word define but the Internet and technology changes so rapidly I think description is a better term. Quite simply, the Internet is a network of interconnected computers used to exchange information in one form or another. This exchange of information can take place in several different formats using several different solutions. One of the things I will address in this article briefly, and in future installments in more depth, are those different ways of using the Internet.

One of the key concepts when considering the Internet is that it's all about INFORMATION and the exchange of that information. Either you have some information that you want to share with someone in particular, a targeted group of individuals, or anyone who happens to find their way to your information. Or you are looking for information, as before, from a sin-

gle person, a targeted group of people, or wherever you can find that bit of information.

The Internet handles all that information and the requests for that information via a computing method known as the client-server method. Very simply, servers are computers that are connected to the network that service requests for information and deliver that information to the requesting party. Clients are computers that are connected to the network and are requesting information.

This exchange of information is done via several different utilities or operating modes on the Internet. Some of the current applications are:

- Email
- FTP
- Telnet
- USENET
- Mailing lists
- Gopher
- IRC - Internet Relay Chat
- World Wide Web

In future installments I will explain each of these in more depth and how you can use each of them.

The first topic of discussion will be how to connect to the Internet. As of this writing, there are two primary avenues to get onto the net. These two approaches are commercial services and Internet service providers (ISP). The commercial services are companies

such as America On Line, Prodigy, Compuserve, Genie, etc. These services provide a quick and easy way to connect to the Internet with minimum setup for the user. One thing to remember about these services is that they themselves are not the Internet but provide access in some form or another to the net. This access might not provide all the services available on the Internet and also some form of control of the information available. They are very easy to set up and use, you can get the disks with the necessary software by calling a 1-800 number or sometimes by simply buying a computer related magazine. The setup is easy, load the software, dial in to a central number, register your account and provide billing information, and you're all ready to go. The downside for these services is cost, usually a flat fee of around \$10 per month for a few hours of connect time with hourly charge rates of around \$3 per hour after that. Full access to the Internet is limited also but as competition increases for connectivity options that is also beginning to change.

The second route to the Internet is the Internet service provider. These are companies, local, regional, or nation-wide that have invested the money necessary to buy servers and phone equipment

(Continued on page 9)

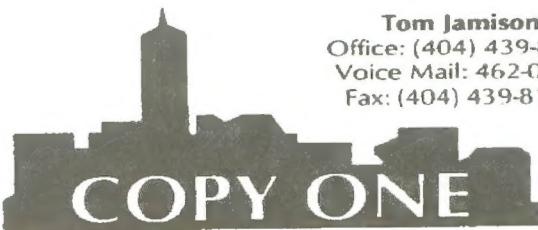
3850 Pleasant Hill Road  
Duluth, Georgia 30136

Off.: 770-623-1900  
Voice Mail: 770-495-3244  
Pager: 770-776-2609

**Sharon Adcock**  
REALTOR®



**Tom Jamison**  
Office: (404) 439-8928  
Voice Mail: 462-0572  
Fax: (404) 439-8174



**COPY ONE**

Service Any Make and Model - "Best Prices in Town"

Copiers • Fax's • Refurbished Laser Printers

## An Internet Primer

(Continued from page 8)

to connect to the Internet and provide connections for the average user via their servers. Prices for connecting can run as low as \$15 per month for full access with unlimited connect time. These providers give you access to all the services and applications available on the net but you have to do some work on your end. Unlike the commercial services the software needs to be configured with information provided by your ISP. You will also need to have software to run the various applications, some ISP include this as part of your setup fee, some offer access to share ware, or you can go to a computer store and buy packages for these applications. If you decide to take this route, and it's the one I recommend, talk to someone who is already on the net, get their opinion about a good ISP and a good software package to use.

Coming up in the next installment, Email and email addresses.

Please send any comments, questions, or items you would like discussed to me at the addresses showed elsewhere in the newsletter.

♦♦♦

## A Rookie's Experience

By Carter Wood, KF4HLF

Yesterday I made a new friend. It was the date of the GARS Pro-Am contest and I was assigned to Karl Phillips, (N4JON). He had called me a day or so ahead and we set up the time to get together in preparation for the contest. He doesn't live far from me so it was a short drive over to his house on Saturday. I didn't know what to expect except that Charles Robison ,AD4MI (a.k.a. the world's greatest General Class instructor) said that we would all have a good time.

I got to Karl's place just a little early. He welcomed me in and showed me his antenna system. As a raw rookie, I had never even seen a dipole outside of a book so even that was great to me. Karl also explained how he built a nifty single element rotating beam for ten meters. His shack is a compact little room off the carport. It's handy but isolated from the family. These things were of great importance to me as I am planning a setup at my home. He has some great gear all neatly arranged. There's a whole wall of QSL cards. He calls the room his shack but I think the word refuge might apply. I

t was almost time for the great competition so we started up his Kenwood ST-102. It is one of the sets that is pictured in the ARRL textbook we used for our class. I noticed that the band selector is labeled in frequencies -

that's different than the way we learned them. When you're new EVERYTHING is interesting. He has a little chart that he has made up to show which antenna to use with which tuner setting for each band. He also had made a card with our callsigns on it. This guy is organized!

At first I was a little hesitant to key the big heavy microphone Karl had but after awhile and by following his example, I was calling out CQ. We only made a few contacts on the assigned frequencies. We had a lot of fun listening on other numbers and contacting hams in NC, OK and about five in TX. The biggest thrill for me came when we heard some CW and I realized that it was Charles sending MY callsign. I don't even know the whole alphabet but it was great to hear and recognize the few letters of code for my license.

The afternoon passed too quickly. I left when his family got home and it was time for dinner but I could have stayed there, spinning that dial for yet another far away place all evening. Karl admits that he sometimes does just that. We don't know our score yet but it's not important. What does count is my renewed sense of urgency to learn the code and get on HF for myself. IT was great fun and I learned a lot that just can not come from a class. Special thanks to Karl and to everyone that worked on the Pro-AM contest.

### Work GARS

**REPEATERS**  
2-Meter 147.075 MHz <sup>+600</sup>  
PL 82.5  
70-cm 444.525 MHz <sup>+5MHz</sup>  
PL 156.7

**TELEPHONE BBS**  
GARS Conference in  
Scientific-Atlanta BBS  
(770) 903-6789

**6-METER BEACON**  
WA4IOB 6 Meter Beacon at  
50.075 MHZ  
**PACKET**  
WD4JXR-6 / SNELLV Packet  
Node/Digipeater 145.03 MHz

**SWAP, WANTED and SELL NET**  
Tuesdays at 8:00PM on the  
GARS 2m Repeater.

**MORSE CODE PRACTICE**  
An interactive Morse Code practice session  
follows the 8:00PM Tuesday night net on  
the GARS 2m repeater.

**PACKET RADIO USERS NET**  
Wednesdays at 8:00 PM on the GARS  
2m Repeater.

♦♦♦

## Rookie Radio Notes

*By Cheryl McClure, AD4HN*

Field Day is almost here again! Rookies take note. This is absolutely the best thing you've ever seen. On Field Day hams all across the country set up their equipment outdoors and try to make as many contacts with as many different parts of the country as possible. Technically, it's an exercise in emergency preparedness, but for hams it's just plain heaven.

Are you curious about HF, packet, CW or even satellite communications? The place to be is Rhodes Jordan Park in Lawrenceville on June 22 - 23<sup>rd</sup>. Not only can you watch someone operate all these modes, you can even try them all yourself. Since there will be plenty of control operators, you will be free to use any mode and any band. As an added plus, you don't have to be nervous or worried about what to say on the air. There is a predetermined exchange of signal report (almost always 59), a code for number of stations being operated (5A) and location (GA). If you are still shy, you can log contacts for someone else. You'll get to observe firsthand how things are done without having to say a word. And if you are a night owl, you'll have even more opportunities to operate. This contest goes all night long. My shift last year was from 1 to 5 am. I made CW contacts and did some

logging for Steve, AD4LY. It was truly a learning experience to watch him work CW. You really get the essence of Field Day around 4 AM.

But don't just plan on being there at night. Although the contest starts at 2 PM, set-up starts much earlier. Come early Saturday morning to help raise the GARS tower and an assortment of dipoles. You'll see a variety of methods of getting the dipoles up in the trees. Last year it was a contest between the bow and arrow method and the slingshot/fishing reel method. If you get there early enough you might get to see Duane, KD4KCR, soldering a center connector to build a new dipole. This is very useful knowledge when you get ready to put up your own dipole. After watching the process at my first Field Day, I was able to build and raise my dipole by myself.

After the antennas are up, the radios are connected and tested. If you plan to be in the market for a new or used radio, this is a good chance to try a variety of old and new rigs. There will be at least 5 HF rigs operating. Each one will be set up for you and there will be lots of experienced hams around to explain how to best operate each one. Even if you already have a rig, you can deepen your knowledge

by seeing how different radios accomplish the same tasks. There just is no end to the learning experiences available to you at Field Day.

Of course there is lots of fun too! There is always someone new to meet from the club and also non-hams who wander by, wondering what all the racket is about. There are picnic tables full of homemade and store-bought goodies to eat, coolers full of soft drinks, and even regular meals. If you're new to Amateur Radio you owe it to yourself to at least drop by and see what's going on. You might just wind up spending the night!



### Swap Shop Corner

#### For Sale

Yaesu FT-51R Dual Band HT

9.6 Volt Battery Pack

Optional Battery pack for AA Alkaline Batteries

Cigarette Lighter Adapter

Yaesu Soft Case

\$450

(770) 985-2923

Robert Bradford, KF4ACZ

bradford@mindspring.com

### GWINNETT COLLISION CENTER, INC.

305 Sharon Ind. Way  
Suwanee, Georgia 30174  
945-0161

Import and Domestic  
Unibody and Frame Repair

Marty Fowler, KE4MLH

Mark Justice

Industrial Control Systems ▲ Sales ▲ Service

**Baker**  
TECHNICAL SERVICES

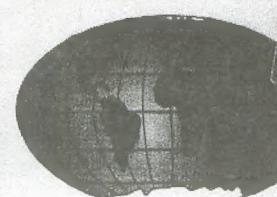
A Division of J.M. Baker Company, Inc.

**James M. Baker**  
Vice President

Phone: (770) 623-5535  
Fax: (770) 497-0479

Regional Pager: (800) 522-2246 ▲ Pin # 022-4059

&gt; 12 STORE BUYING POWER! &lt;



# HAM RADIO OUTLET

WORLDWIDE DISTRIBUTION

ALINCO

ATLANTA, GA 30340  
6071 Buford Highway  
(404) 263-0700  
(800) 444-7927

Phone Hours:  
9:30 AM to 5:30 PM  
Store Walk-In Hours:  
10:00 AM - 5:30 PM • Closed Sundays

Call/Write for your HRC Catalog!

ATLANTA, GA 30301  
953 N. Euclid St.  
(770) 532-2373

(800) 854-8840  
Janet, WPAW, Mgr.

Hear Disneyland  
2115 E. Livernois St.  
(510) 534-0137

(800) 854-8848  
Ric, WPAW, Mgr.

1-800-234-Ave. ramp

Clarendon Hills

CHICAGO, IL 60606  
5375 Keweenaw Rd.  
(510) 565-4000

(800) 854-8840

Tom, KXWY, Mgr.

May, 10A, 4

Clarendon Hills

SAN DIEGO, CA 92125  
5375 Keweenaw Rd.  
(510) 565-4000

(800) 854-8840

Tom, KXWY, Mgr.

May, 10A, 4

Clarendon Hills

SUBURBIA, CA 94086  
5101 Lawrence Express #102

(408) 736-9456

(800) 854-8846

Jim, KXWY, Mgr.

Lawrence Express

Se. Fremont Hwy. 101

MARIN COUNTY, CA 94111  
6395 Sepulveda Blvd.

(415) 888-2213

(800) 854-8846

Jim, KXWY, Mgr.

San Diego Frey

Al Victory Blvd.

NEW STORM!

NEW CASTLE, DE 19720

1500 N. Dupont Hwy.

(302) 322-7022

(800) 844-4787

John, NYFL, Mgr.

RT 13 1/4 mi. So. 266

AZ, CA, CO, GA, VA residents add \$3.00

Price, specifications, descriptions subject

to change without notice

DJ - 580T

294440 Dual Band  
40 Mem Channels  
DSQ, Dual Display  
CTCSS Enc./Dec. Built-in  
Cross Band Full Duplex

CALL FOR  
SPECIAL  
LOW PRICE!

DR - 600T

394440 FM Transceiver

45W/35W + Almond TX  
Detachable/Removable Head  
Keyboard In/Out from microphone  
CALL FOR OUR SPECIAL PRICE!

YAESU

HANDHELDS

FT-530

2M/440MHz  
2W Standard, 5W opt.  
62 Mems, Dual in-band FRS  
DTSS Paging + coded Squelch  
Built-In VOX & CTSS  
Auto tone search  
Built-In clock / Backlit Keyboard  
SPECIAL PRICING!

FT - 990

100W HF Gen. Cov. Transceiver  
DOS, DSK + 500Hz CW Filter Included

CALL FOR OUR LOW PRICE!

KENWOOD

TS - 50S/TS - 60S

HF Transceiver 8M  
TH-79A

TS-50S - World's smallest HF Transceiver  
100W out. (SWR TS-60S, 50Wt. only)  
SSB, CW, AM, FM

12V Gen. Cov. 10C, 6.4 lbs., 7.19 x 2.4 x 9.32"  
150W dynamic range, 100 Mems.

Opt. ext. int. tuners available (TS-50S only)

CALL NOW FOR OUR LOW PRICING!

HANDHELDS

2M/440MHz  
TH-22AT

Ultra Compact  
2M, 2W, 4W  
5W Optional  
DTSS Built-In  
82 Memories  
DTMF Memory  
Built-In CTSS Enc./Dec.  
User-Friendly Menus Sys.

CALL NOW FOR  
INTRO SPECIAL!

ICOM

HANDHELDS

IC-D1A  
2M/440/1.2 Tri-Band  
IC-WF21AT/IC-V21AT  
2M/440 2M/220

IC-28XAT, 2M

IC-T21A, 2M

IC - 737A

HF Transceiver  
12V 100W wide Ant. Toner  
Built-In Gen Cov. RX 101 Mems., VOX  
DDS, DSQ, Passband Tuning

## Metro Atlanta Club Meetings

### First Tuesday

#### Metro Atlanta Telephone Pioneers

Old Hickory House, 5490 Chamblee-Dunwoody Rd., Dunwoody. Dutch dinner is at 6:30PM, followed by meeting. Talk In -145.410(-)

### First Wednesday

#### HamWatch

Alpha Soda Restaurant, Haynes Bridge Road, Alpharetta, Dinner at 6:30PM. Meeting at 7:30PM

### First Thursday

#### N.E. Ga ARC

Jefferson Civic Center, off Memorial Dr. toward Winder from Jefferson. Meeting is at 6:30PM. Talk In - 147.225(+)

#### Atlanta Radio Club

Kitteredge Magnet School, North Druid Hills Rd. and Briarcliff. Meeting is at 7:30PM Talk In -146.820(-)

### Second Wednesday

#### North Fulton Radio League

Alpha Soda Restaurant, Haynes Bridge Road, Alpharetta, Dinner at 6:30PM. Meeting at 7:30PM Talk In - 145.47(-)

### Second Thursday

#### Alford Memorial Radio Club

Elks Lodge on Memorial Drive. Dinner at 6:00PM Meeting at 7:30PM. Talk In - 146.760(-)

### Second Saturday

#### East Atlanta LAN

Scott Blvd Baptist Church in Decatur. Meeting is at 10:00AM. Talk In - 145.410(-)

### 3rd THURSDAY

#### Gwinnett Amateur Radio Society

Gwinnett Justice And Administrative Center in Lawrenceville. Meeting begins at 7:30 in the main auditorium Talk In-147.075(+)

♦♦♦

## GARS Membership Application

P.O. Box 88, Lilburn, GA 30226

Amateur Callsign: \_\_\_\_\_ Class: \_\_\_\_\_ Expires: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Name: \_\_\_\_\_ Home Phone: (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

Address: \_\_\_\_\_ Work Phone: (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_

City/State/Zip: \_\_\_\_\_ Date of Birth: \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Type of Membership:  Individual  Family ARRL Member Y/N: \_\_\_\_\_ ARRL Lifetime Y/N: \_\_\_\_\_

Additional members for Family Memberships Callsign \_\_\_\_\_ Class \_\_\_\_\_ Birth Date \_\_\_\_\_ ARRL \_\_\_\_\_ ARRL Life \_\_\_\_\_

\_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ [M][N] [Y][N]

\_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ [M][N] [M][N]

\_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ [M][N] [M][N]

\_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_ [M][N] [M][N]

Interests:  Class Instruction  Field Day Operations  Repeater Maintenance  GARS Booth Staffing  Emergency

Community Events  Administrative  Fund Raisers  Other \_\_\_\_\_

Dues:  Individual Membership \$25.00  Family Membership \$35.00  Senior Citizen \$12.50  Student \$12.50

# THE GARZETTE

JUNE, 96

Gwinnett Amateur Radio Society  
P.O. Box 88  
Lilburn, GA 30226



Mailing  
Address  
Goes  
Here

**GARS meets the third Thursday of each month at the Gwinnett Justice and Administration Center in Lawrenceville. The next meeting will be on February 15 at 7:30 P.M.**

PAGE 12

THE GARZETTE

JUNE, 96

## Metro Atlanta Test Sessions

**GARS** Publishes Metro Area VE/VEC Exam Schedules as a service and is not responsible for errors or changes. Call and confirm schedules before going. All sessions are walk-in. Take copies of current license and certificate of completed

1st Sunday - 2:00PM - W5YI VEC  
Duane Reynolds, WB2YAD - 338-8791  
Jackson EMC, 461 Swanson Road,  
Lawrenceville

1st Monday - 7:30PM - ARRL VEC  
Delaine McCarthy, KM4FV - 993-9758  
St. Ann Catholic Church - 4905 Roswell  
Rd - Marietta

1st Saturday - 9:00AM  
George White, KN4NG 361-6850  
Clayton Co. Emergency Mgmt. Bldg.  
7496 N. McDonough St. - Jonesboro

2nd Sundays - 3:00PM  
Mike Mahaffey, AD4QB - 974-7710  
First Presbyterian Church,  
183 West Main Street, Cartersville

2nd Tuesday - 7:00PM  
Wayne Taylor, WD4CCA 498-7759  
Walton EMC  
3645 Lenora Church Rd, Snellville

2nd Saturday - 8:30AM - CA VEC  
Hal Martin, KI4RD - 978-9160  
Stone Mountain Methodist Church  
5312 West Mountain St., Stone Mtn.

3rd Saturdays - 9:00AM - CA VEC  
Larry Huff, WA4CQZ - 955-3171  
Marietta First United Methodist Church  
56 Whitlock Ave, Room 305

4th Sunday - 2:30PM - ARRL VEC  
Steve Schmidt, KR4DL - 242-6142  
Episcopal Church of the Atonement  
Highpoint Rd, Atlanta

4th Tuesday - 7:00PM ARRL VEC  
Jessie Clower, KB4WFK - 942-6466  
United Way Service Center  
6279 Fairburn Road, Douglasville, GA

4th Friday - 7:00PM  
**GARS** W5YI-VEC  
Howie Gould, W4NVF 921-8362  
St. John Neumann Church  
801 Tom Smith Rd, off Five Forks  
Trickum Rd, Lilburn

Mon	147.21+	8:00PM	Conyers ARES Net t-162.2
Mon	145.45-	8:00PM	ARES Net (Decatur)
Mon	145.47-	8:00PM	North Fulton ARL Net
Mon	145.41-	8:30PM	MATPARC Net
Mon	3.975	8:00PM	Swap Net
Tue	147.075+	8:00PM	<b>GARS</b> Weekly Net
Tue	147.075+	9:00PM	<b>GARS</b> CW Practice
Tue	145.47-	10:30PM	Insomniac Net
Wed	147.075+	8:00PM	<b>GARS</b> Packet Net
Wed	145.41-	8:00PM	Chapter 49, QCWA Net
Wed	146.67-	9:00PM	LARC Net
Wed	146.655-	9:00PM	BSRG Net t-188.8
Thu	146.88-	8:00PM	Kennahoochie ARC
Thu	147.225+	8:00PM	NE Ga ARC
Thu	147.15	8:00PM	simplex
Thu	145.41-	9:30PM	AMSAT
Thu	Cable57	9:30PM	Amateur Television, ATV
Fri	3.898	8:00PM	GA Traders Net
Fri	146.76-	Midnight	Turnip Truck Net t-107.2
Sat	7.275	8:00AM	Swap Net
Sat	3.857	9:00AM	Chapter 49, QCWA Net
Sat	146.76-	Midnight	Turnip Truck Net t-107.2
Sun	147.075+	8:00PM	<b>Gwinnett</b> ARES Net
Sun	146.82-	8:00PM	ARC Net
Sun	146.76-	7:00PM	Roundtable AMRC t-107.2
Sun	7.275	9:00AM	GA Traders Net
Sun	3.983	5:00PM	GA ARES
Daily	146.76-	Noon	Brown Bag Net t-107.2
Daily	146.88-	11:00PM	Late Nite Owl Net
Daily	146.79-	8:00PM	Sassafrass Mtn.
Daily	3.975	6:00PM	WX & Skywarn

This is a "living list", meaning it is constantly changing. If you know of additions or changes to it please contact the Editor.